



**LOUISVILLE METRO
AIR POLLUTION CONTROL DISTRICT
850 Barret Ave., Louisville, Kentucky 40204**



11 October 2014

FEDOOP Statement of Basis

Company: Brenntag Mid-South, Inc.

Plant Location: 3900 Tucker Ave., Louisville, KY 40216

Date Application Received: 04-16-2012

Date Admin Complete: 06-15-2012

Date of Draft Permit: 10-11-2014

Date of Public Notice: 10-11-2014

District Engineer: Karen Thorne

Permit No: 125-01-F(R2)

Plant ID: 0221

SIC Code: 5169

NAICS: 42269

AFS: 0221

Introduction:

This permit will be issued pursuant to District Regulation 2.17, *Federally Enforceable District Origin Operating Permits*. Its purpose is to limit the plant wide potential emission rates from this source to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO₂), carbon monoxide (CO), 1 hr and 8 hr ozone (O₃), and particulate matter less than 10 microns (PM₁₀); and is a non-attainment area for particulate matter less than 2.5 microns (PM_{2.5}) and partial non-attainment area for sulfur dioxide (SO₂).

Application Type/Permit Activity:

☐ Initial Issuance

☐ Permit Revision

☐ Administrative

☐ Minor

☐ Significant

☒ Permit Renewal

Compliance Summary:

☒ Compliance certification signed

☐ Compliance schedule included

☐ Source is out of compliance

☒ Source is operating in compliance

I. Source Information

1. **Source Description:** The Brenntag Mid-South Louisville distributes chemicals.
2. **Emission Unit Summary:** Brenntag Mid-South operates the following emission units in Louisville.

Emission Unit	Equipment Description
U1	Solvent storage tanks
U2	Solvent packaging
U3 and U4	Bulk tanker loading

3. **Fugitive Sources:** NA
4. **FEDDOOP Permit 125-01-F(R2) Revisions:**

Revision	Issue Date	Public Notice Date	Type	Description
2	xx/xx/2014	10/11/2014	Renewal	Permit renewal
1	06/30/2007	05/07/2007	Renewal	Permit renewal
NA	11/05/2001	05/27/2001	Initial	Initial issuance

5. **Applicable Requirements:**

☐ PSD ☐ 40 CFR 60 ☒ SIP ☐ 40 CFR 63
☐ NSR ☐ 40 CFR 61 ☒ District-Origin ☐ Other

6. **Future MACT Requirements:** NA
7. **Referenced Federal Regulations in Permit:** NA
8. **Emission Summary:**

Pollutant	Actual Emissions (tpy) 2013 Data*	Pollutant that triggered major source status
CO	NA	No
NO _x	NA	No
SO ₂	NA	No
PM/PM ₁₀ /PM _{2.5}	NA	No
VOC	1.491	Yes
Total HAPs	1.491	Yes

* Emissions reported by source in the second quarter 2012 compliance report.

II. Regulatory Analysis

1. **Acid Rain Requirements:** The source is not subject to the Acid Rain Program.
2. **Stratospheric Ozone Protection Requirements:** This source does not manufacture, sell, or distribute any of the chemicals listed in Title VI of the CAAA. Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.
3. **Prevention of Accidental Releases 112(r):** The source does manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, Chemical Accident Prevention Provisions, in a quantity in excess of the corresponding specified threshold amount. The required Risk Management Plan was submitted on November 01, 2010.
4. **Basis of Regulation Applicability**

Regulation	Basis for Applicability
5.00	Definitions
5.15	Chemical Accident Prevention Provisions
7.12	Establishes VOC standards for VOC storage vessels constructed after April 19, 1972 with a storage capacity greater than 250 gallons
7.25	Establishes VOC standards for affected facilities constructed after June 13, 1979.

a. Plant-wide major source limits

Brenntag Mid-South is a major source for VOC and HAP. Regulation 2.17 – *Federally Enforceable District Origin Operating Permits* establishes requirements to limit the plant wide potential emission rates to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

Brenntag Mid-South has requested to be exempt from the requirements of STAR, as defined by Regulation 5.00, section 1.13.5, by accepting the following limits: 25 tons per year of a regulated air pollutant, 5 tons per year of a single HAP, and 12.5 tons per year of combined HAPs.

b. Equipment:

EU	EP ID	Description	Applicable Regulations
U1	E-1	Fixed-roof w/ N2 Pad, Isopropyl Alcohol	7.12
	E-2	Fixed-roof w/ N2 Pad, Mineral Spirits	
	E-3	Fixed-roof w/ N2 Pad, N-butyl acetate	
	E-4	Fixed-roof w/ N2 Pad, Methyl amyl ketone	
	E-5	Fixed-roof w/ N2 Pad, Acetone	
	E-6	Fixed-roof w/ N2 Pad, VM&P naphtha	
	E-7	Fixed-roof w/ N2 Pad, N-propyl alcohol	
	E-8	Fixed-roof w/ N2 Pad, Toluene	
	E-9	Fixed-roof w/ N2 Pad, Mineral Spirits	
	E-10	Fixed-roof w/ N2 Pad, Mineral Spirits	
	E-11	Fixed-roof w/ N2 Pad, Methyl Ethyl Ketone	
	E-12	Fixed-roof w/ N2 Pad, Methanol	
	E-13	Fixed-roof w/ N2 Pad, Ethyl acetate	
	E-14	Fixed-roof w/ N2 Pad, Solvent 100	
	E-15	Fixed-roof w/ N2 Pad, Toluene	
	E-16	Fixed-roof w/ N2 Pad, Dowanol	
	E-17	Fixed-roof w/ N2 Pad, Ethanol	
	E-18	Fixed-roof w/ PV vent, Xylene	
	E-23	Fixed-roof w/ PV vent, Mineral Spirits	
	E-24	Fixed-roof w/ PV vent, Dowanol	
U2	E-25	Packaging of solvents into portable containers	7.25
U3	E-26	Bulk tanker loading	7.22

c. Standards/Operating Limits**i. VOC**

- 1) Per Regulation 2.17, section 5.1, plant-wide VOC emissions are limited to 25 tons during any consecutive 12-month period. (The source has requested to be exempt from the requirements of STAR by accepting the following limits: 25 tons per year of a regulated air pollutant, 5 tons per year of a single HAP, and 12.5 tons per year of combined HAPs.)
- 2) Regulation 7.12, section 3.3 requires submerged fill for the storage tanks (EU U1) if the materials have an as stored vapor pressure of 1.5 psia or greater.

- 3) Regulation 7.25 does not apply to affected facilities with potential VOC emissions less than or equal to 5 tons per year. Therefore, the source is subject to a VOC emission limit of 5 tons during any consecutive 12-month period from EU U2, Solvent packaging.
- 4) Per Regulation 7.22, the source shall not load any volatile organic materials into any tank, truck, trailer, or railroad car from the loading facility (EU U3) unless such loading is accomplished by submerged fill, bottom loading, or equivalent methods. To avoid control requirements prescribed by Regulation 7.22, the source shall not load 20,000 gallons or more in any one day.

ii. HAP

- 1) Per Regulation 2.17, section 5.1, individual HAP emissions are limited to 5 tons during any consecutive 12-month period. (The source has requested to be exempt from the requirements of STAR by accepting the following limits: 25 tons per year of a regulated air pollutant, 5 tons per year of a single HAP, and 12.5 tons per year of combined HAPs.)
- 2) Per Regulation 2.17, section 5.1, combined HAP emissions are limited to 12.5 tons during any consecutive 12-month period. (The source has requested to be exempt from the requirements of STAR by accepting the following limits: 25 tons per year of a regulated air pollutant, 5 tons per year of a single HAP, and 12.5 tons per year of combined HAPs.)

e. Monitoring and Record Keeping

Regulation 2.17, section 5.2 requires sufficient monitoring and record keeping assuring ongoing compliance with the terms and conditions of the permit.

i. VOC

- 1) The source is required to monitor and maintain records of the throughput and VOC emissions for each emission point during each 12-consecutive month period.
- 2) There is no monitoring or recordkeeping required for Regulation 7.12 for EU U1.
- 3) To demonstrate compliance with Regulation 7.25, the

source is required to monitor and record the monthly throughput and 12-consecutive month VOC emissions from EU U2, Solvent packaging.

- 4) To preclude the control requirements of Regulation 7.22, the source shall monitor and record monthly throughput through the loading rack (EU U3).

ii. HAP

The source must calculate and record the 12-consecutive month single and total HAP emissions in order to demonstrate compliance with the plant-wide HAP limits.

f. Reporting

Regulation 2.17, section 7.2, requires stationary sources for which a FEDOOP is issued shall submit an annual compliance certification by April 15. In addition, as required by Regulation 2.17, section 5.2, the source shall submit an annual compliance report to show compliance with the permit, by March 1 of the following calendar year. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.17, section 3.5.

i. VOC

- 1) The source is required to report the total *plant-wide* 12-consecutive month VOC emissions for each month in the reporting period in order to demonstrate compliance with the plant-wide VOC limit.
- 2) There are no reporting requirements for Regulation 7.12 for EU U1.
- 3) To demonstrate compliance with Regulation 7.25, the source is required to report the 12-consecutive month VOC emissions from EU U2, Solvent packaging.
- 4) There are no reporting requirements for Regulation 7.22 for EU U3.

ii. HAP

The source must report the 12-consecutive month single and combined HAP emissions in order to demonstrate compliance with the plant-wide HAP limits.

III. Other Requirements

1. **Temporary Sources:** The source did not request to operate any temporary facilities.
2. **Short Term Activities:** The source did not report any short term activities.
3. **Emissions Trading:** NA
4. **Alternative Operating Scenarios:** The source did not request to operate under any alternative operating scenarios.
5. **Compliance Status:** Brenntag Mid-South is currently in compliance.
6. **Emissions Calculation Methodology:** The calculated emissions are based on the monthly throughput data, the EPA TANKS program, and AP-42 emission factors.
7. **Insignificant Activities**

Description	Quantity	Basis
Combustion sources < 1.0 MMBtu/hr	1	Regulation 1.02 Appendix A section 1.1.
Internal combustion engines, whether fixed or mobile (forklifts)	9	Regulation 1.02 Appendix A section 2.